

Pima County Clerk of the Superior Court
Clerk Technology Division (CTD)

Disaster Recovery Plan



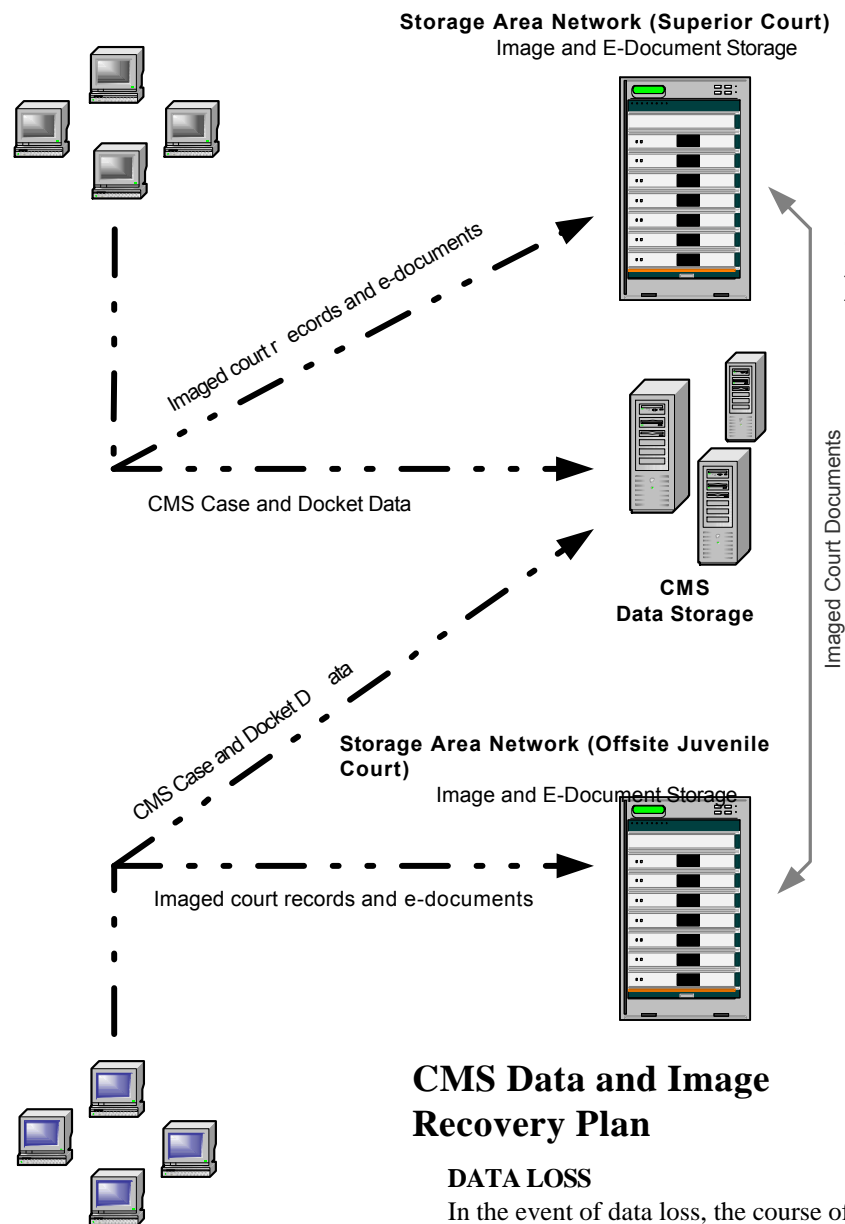
Pima County Clerk of Superior Court

Imaged Court Document Backup and Recovery Plan

CMS Data and Image Infrastructure

Core data elements will be initiated and maintained by the Clerk's Office. Updates to the database are made in real time to the Clerk's CMS database.

Imaged documents are stored on the Clerk's SAN. The SAN is comprised of two IP4700 and one FC 4700 storage units. The combined storage is just over 1.5 GB of usable, redundant storage.



CMS Data and Image Backup Plan

CMS Database backups are contained in multiple areas. This includes backups to local storage, external storage, and tape.

Images are backed up nightly to the remote storage at the Juvenile site and locally on DVD.

CMS Data and Image Recovery Plan

DATA LOSS

In the event of data loss, the course of action will be to restore from the local backup, then the external backup, and (if necessary) the tape backup.

IMAGE LOSS

In the event of image loss, the database will be queried to determine the extent of the loss. Then, the lost images will be cataloged for immediate restoration from either the local backup (DVD) or from the offsite backup.

HARDWARE LOSS

In the event of hardware loss, the CMS database environment will be recreated as quickly as possible on an alternate server.

If the SAN hardware crashes, image data can be retrieved from the offsite storage (Juvenile).

Pima County Clerk of Superior Court

Imaged Court Document Backup and Recovery Plan

(ETA 12/03)

CMS Data and Image Infrastructure

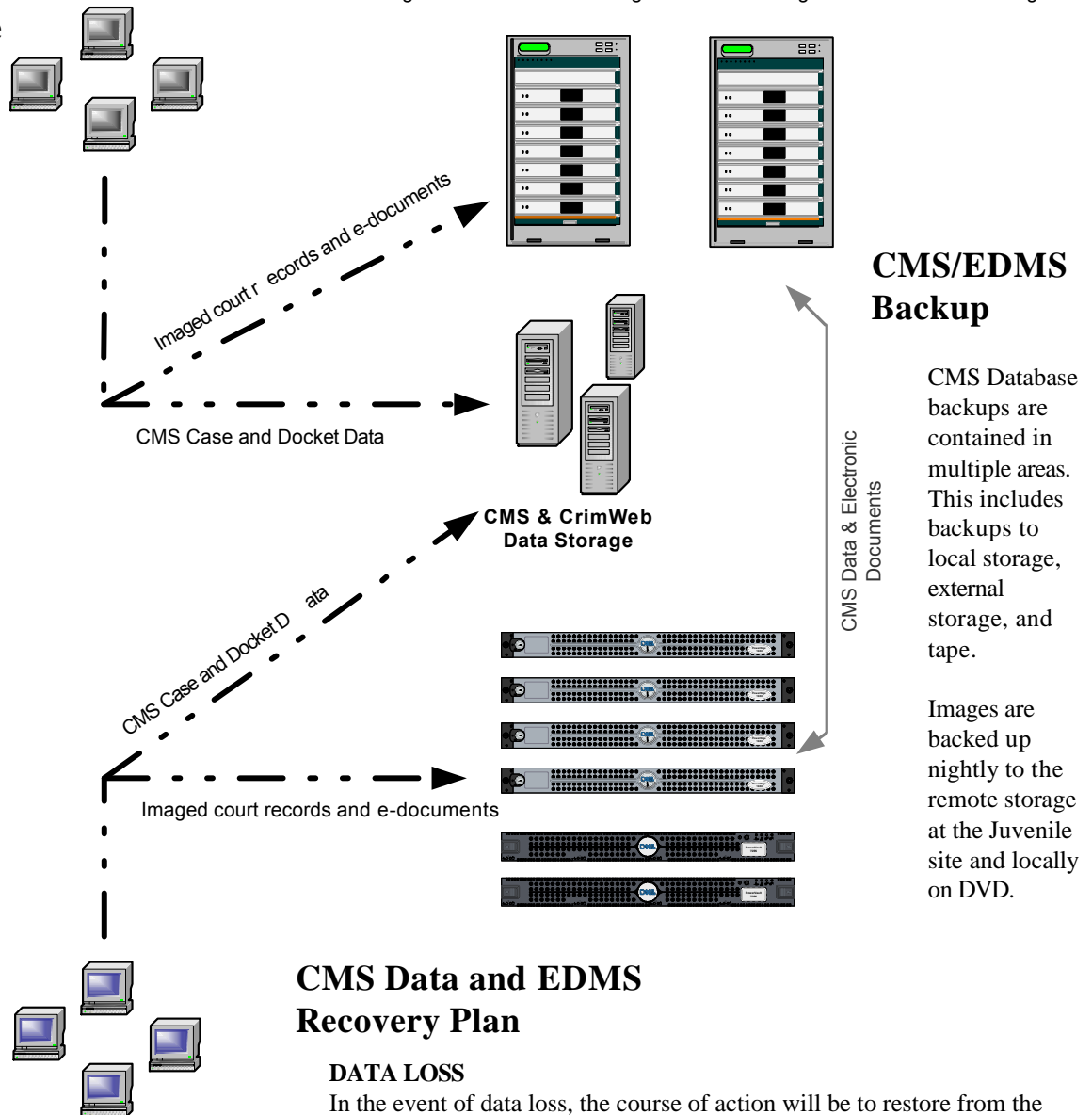
Core data elements will be initiated and maintained by the Clerk's Office. Updates to the database are made in real time to the Clerk's CMS database.

Imaged documents are stored on the Clerk's SAN. The SAN is comprised of two IP4700 and one FC 4700 storage units. The combined storage is just over 1.5 GB of usable, redundant storage.

To address future growth, the IP4700 originally deployed at the Juvenile site will be redeployed at the main Superior Court site.

Storage Area Network (Superior Court) Image and E-Document Storage

Storage Area Network (Redeployed) Image and E-Document Storage



CMS/EDMS Backup

CMS Database backups are contained in multiple areas. This includes backups to local storage, external storage, and tape.

Images are backed up nightly to the remote storage at the Juvenile site and locally on DVD.

CMS Data and EDMS Recovery Plan

DATA LOSS

In the event of data loss, the course of action will be to restore from the local backup, then the external backup, and (if necessary) the tape backup.

IMAGE LOSS

In the event of image loss, the database will be queried to determine the extent of the loss. Then, the lost images will be cataloged for immediate restoration from either the local backup (DVD) or from the offsite backup.

HARDWARE LOSS

In the event of massive hardware loss or main site disaster, the CMS database environment will be recreated as quickly as possible at the Juvenile Court site.

If the SAN hardware crashes, image data can be retrieved from the offsite storage (Juvenile).

Pima County Clerk of Superior Court

CMS and EDMS Disaster Recovery Plan - Offsite Fallback

Critical Application Offsite Redundancy

In the event of a major outage at the Superior Court complex, all of the Clerk's major applications (CMS, CrimWeb, and EDMS) are replicated out at the Juvenile Court site.

The fallback servers that power CMS, CrimWeb, and EDMS are meant to handle Clerk functions in a smaller scale. Complete replication of the fallback hardware at Superior Court would be too costly. The fallback hardware can handle the daily workload volume, but is not equipped to handle the entire EDMS and public record search user base (approximately 9,000 unique users).

The CMS and CrimWeb applications are backed up to their respective fallback server counterparts at the Juvenile site.

A single web server is used to serve up the EDMS and record search retrieval functions.

To support our production electronic documents, the Clerk will use network attached storage (NAS) units. Production electronic documents are backed up to the NAS units nightly. The NAS requirements are just under 1 TB of storage. Additional NAS units will be deployed as needed.

Production electronic documents are also archived to WORM optical media (DVD). A copy of each DVD backup is stored at both the Superior Court and Juvenile



DELL PowerEdge 1750 (Web Server)

Dual 3.06 GHz (512KB - 533 FSB)
1 GB RAM (266 MHz - 4 DIMMS)
2 x 73 GB (SCSI Hot Plug - 10K RPM)
Onboard Raid 1
Windows 2003 Web Server Ed.



DELL PowerEdge 1750 (CMS Database)

Dual 2.8 GHz (512KB - 533 FSB)
1 GB RAM (266 MHz - 4 DIMMS)
2 x 146 GB (SCSI Hot Plug - 10K RPM)
Onboard Raid 1
Windows 2003 Server w/ 5 CALs



DELL PowerEdge 1750 (CrimWeb Database)

Dual 2.8 GHz (512KB - 533 FSB)
1 GB RAM (266 MHz - 4 DIMMS)
2 x 146 GB (SCSI Hot Plug - 10K RPM)
Onboard Raid 1
Windows 2003 Server w/ 5 CALs



DELL PowerVault (Image Storage)

P4 2.4 GHz
1 GB DDR 266 (2 512 DIMMS)
Four 250 GB Mirrored
(475 + useable)



DELL PowerVault (Image Storage)

P4 2.4 GHz
1 GB DDR 266 (2 512 DIMMS)
Four 250 GB Mirrored
(475 + useable)

Pima County Clerk of Superior Court

Web Traffic Control

CMS/EDMS Web Retrieval

All Internet traffic must pass through Pima County's Firewall. Pima County's firewall services all county entities within the county complex.

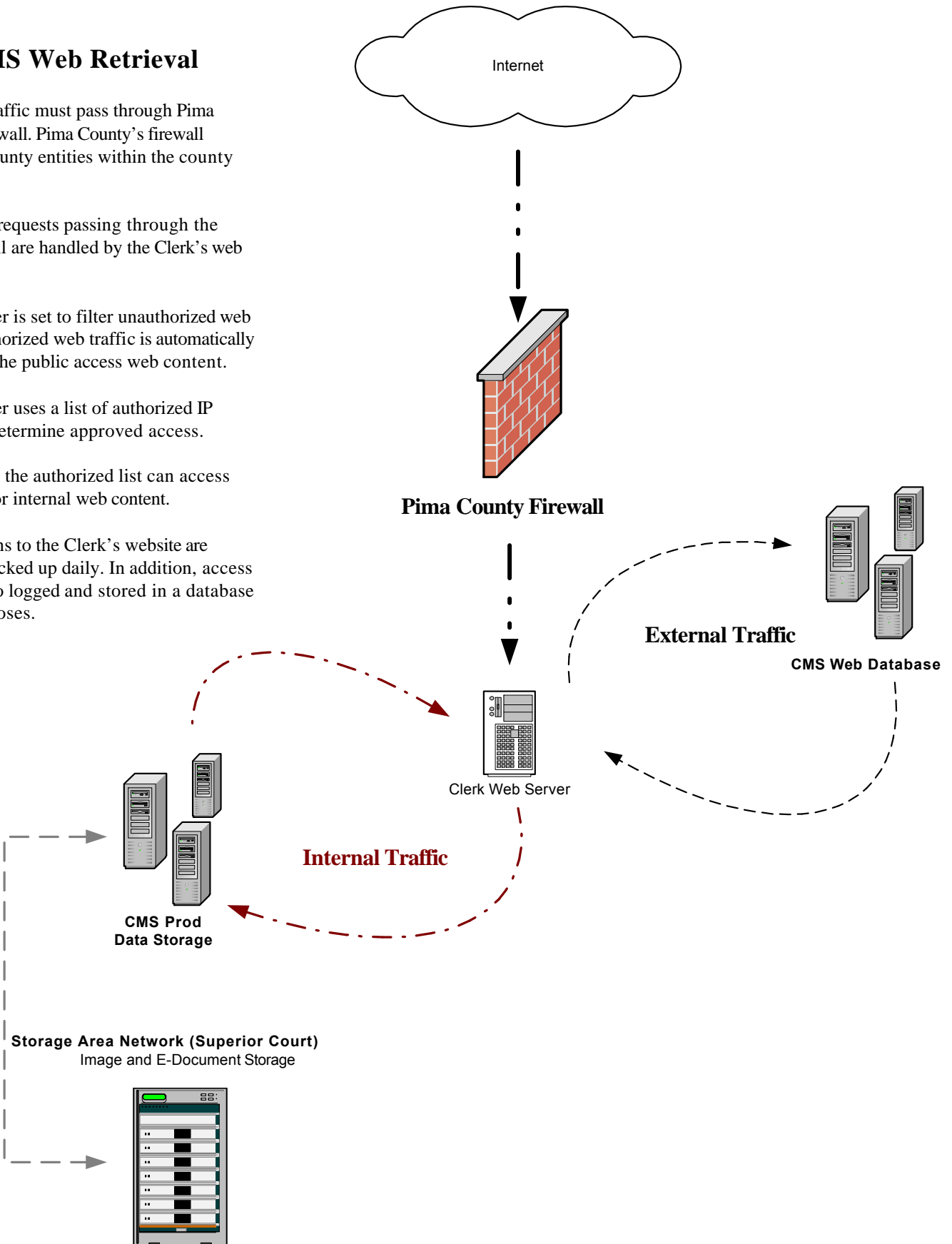
Web (HTTP) requests passing through the county firewall are handled by the Clerk's web server.

The web server is set to filter unauthorized web traffic. Unauthorized web traffic is automatically forwarded to the public access web content.

The web server uses a list of authorized IP addresses to determine approved access.

Requestors on the authorized list can access either public or internal web content.

All connections to the Clerk's website are logged and backed up daily. In addition, access to cases is also logged and stored in a database for audit purposes.

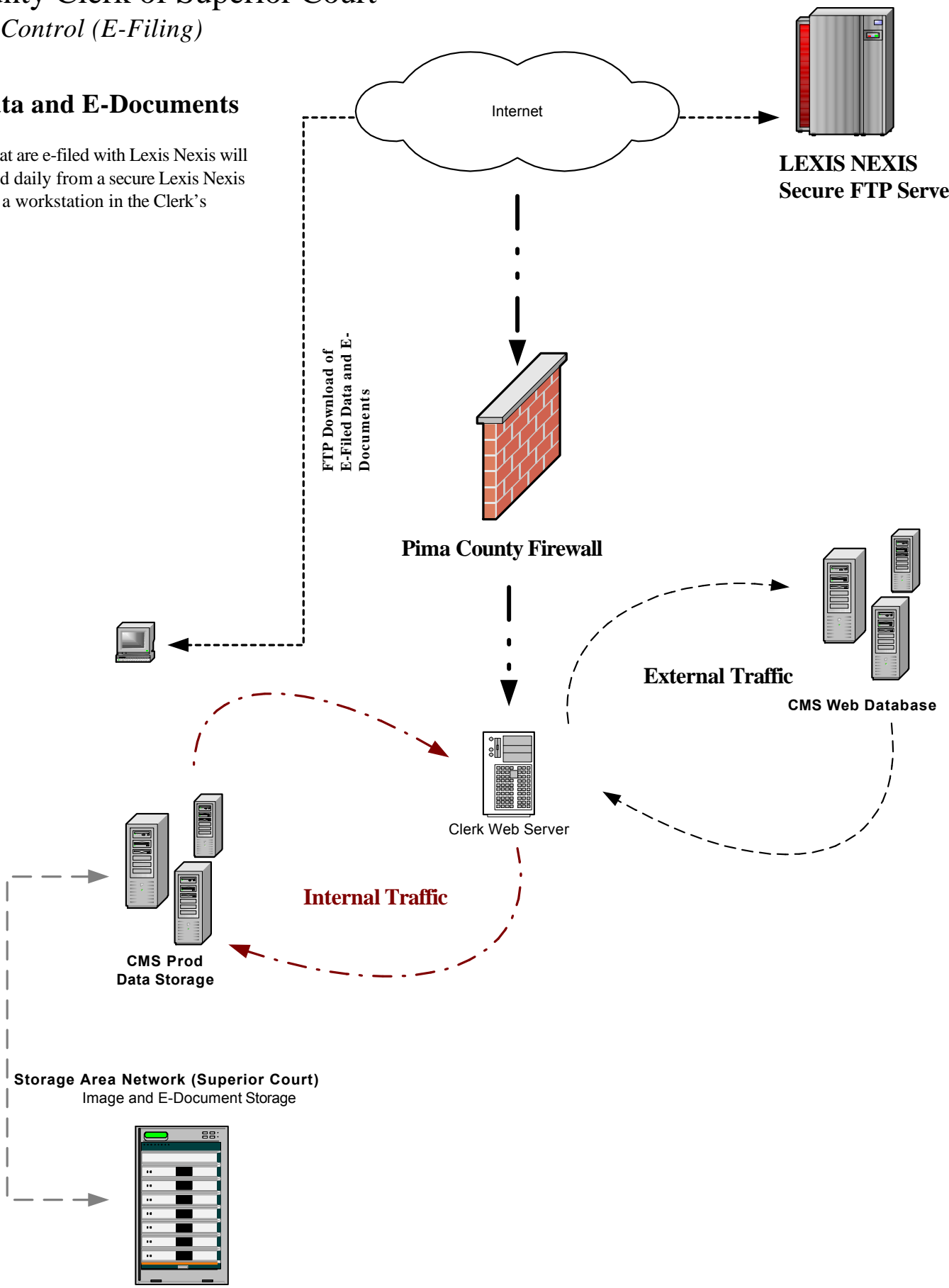


Pima County Clerk of Superior Court

Web Traffic Control (E-Filing)

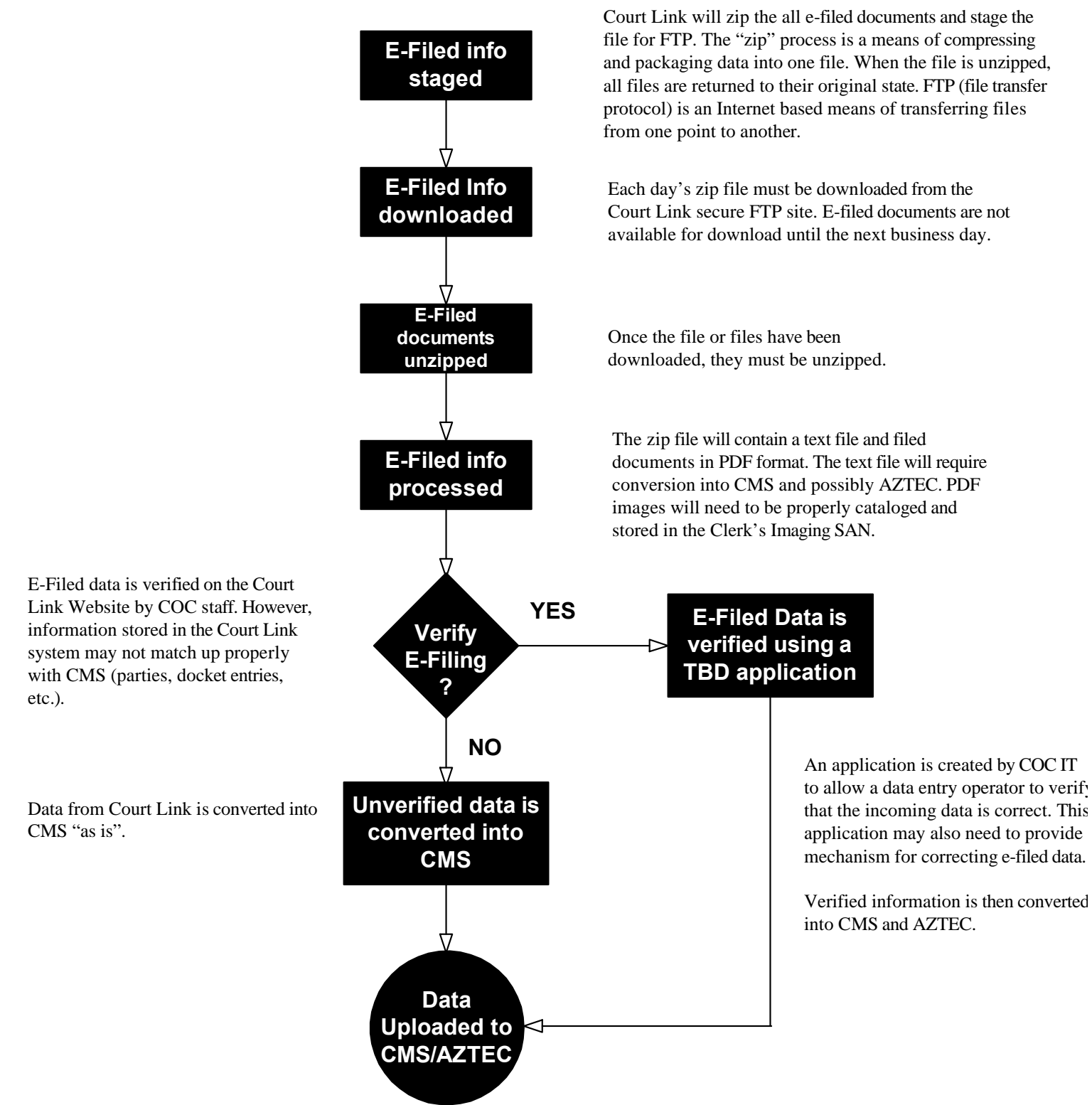
E-Filed Data and E-Documents

Documents that are e-filed with Lexis Nexis will be downloaded daily from a secure Lexis Nexis FTP server to a workstation in the Clerk's Office.



Pima County Clerk of the Superior Court

E-Filing Model



Pima County Clerk of Superior Court

E-Filing Conceptual Model

1 Case Party E-File Court Documents



External parties log onto the Lexis Nexis e-filing application to file their court documents.

- 2 E-filed data on the Lexis Nexis Application/Web Server is reviewed and verified by Clerk Staff over the Internet.



Clerk PC Workstation

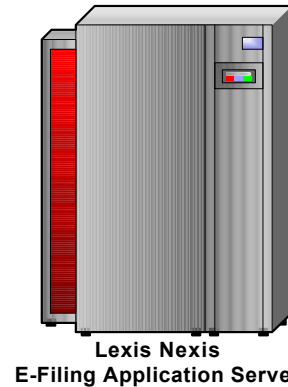
- 3 Verified e-filed data is then downloaded (via FTP) to a staging area on the Clerk's Network the following morning.



Clerk PC Workstation

- 4 At this point, we have two options. The data downloaded from Lexis can be uploaded directly to CMS without addition verification or a user interface could be used to allow a manual check of the data.

In either case, additional programming will be needed to import this data into both CMS and PAM/AZTEC.



Lexis Nexis E-Filing Application Server

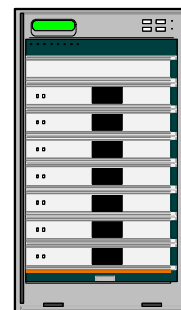
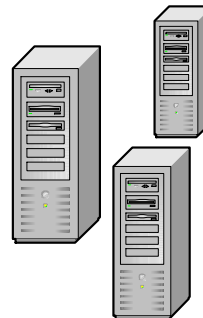


Image SAN Storage

- 5 The final result is the integration of the data and electronic documents into CMS. Also, the data downloaded from Lexis should also be integrated into PAM/AZTEC.



CMS and PAM/AZTEC Data Storage

Pima County Clerk of Superior Court
E-Filing Conceptual Model

